3. Class Creation

Starter Quiz · 课前小测

AP Computer Science A Name: _____ Score: _____

1. Abstraction is best described as...

   ☐ hiding details to focus on the main idea

   ☐ writing more code

   ☐ deleting comments

   ☐ a run-time error

2. A modular design (independent, well-named pieces) is mainly easier to...

   ☐ test, maintain, and reuse

   ☐ compile only once

   ☐ run without a computer

   ☐ hide from users

3. Which are the three kinds of members in a class?

   ☐ instance variables, constructors, methods

   ☐ loops, ifs, casts

   ☐ int, double, boolean

   ☐ public, private, static

4. A constructor has...

   ☐ the class's name and no return type

   ☐ a void return type

   ☐ any name you like

   ☐ an int return type

5. A method that returns information without changing the object is a(n)...

   ☐ accessor (getter)

   ☐ mutator (setter)

   ☐ constructor

   ☐ cast

6. Most code is read and changed far more often than it is first written.

   ☐ True ☐ False

7. A method can change the caller's int variable by modifying its parameter.

   ☐ True ☐ False

8. Breaking a big problem into smaller named behaviors (methods) is called method _____ (one word).

   _____

9. Bias in a program's data or logic can produce unfair results at scale.

   ☐ True ☐ False

10. Keeping data private and exposing it only through methods is called _____ (one word).

    _____

3. Class Creation

Answers · 答案

AP Computer Science A

1. **hiding details to focus on the main idea**

   Abstraction hides how something works so you can use what it does.

2. **test, maintain, and reuse**

   Modularity makes changes safer and pieces reusable.

3. **instance variables, constructors, methods**

   State (instance variables), setup (constructors), behavior (methods).

4. **the class's name and no return type**

   Same name as the class, no return type — not even void.

5. **accessor (getter)**

   Accessors read and return; mutators change state.

6. **True**

   So maintainable design pays off repeatedly.

7. **False**

   Primitives are copied — the caller's int is untouched.

8. **decomposition**

   Method decomposition splits work into focused methods.

9. **True**

   Design choices affect real people — consider who is impacted.

10. **encapsulation**

    Encapsulation protects an object's data.